

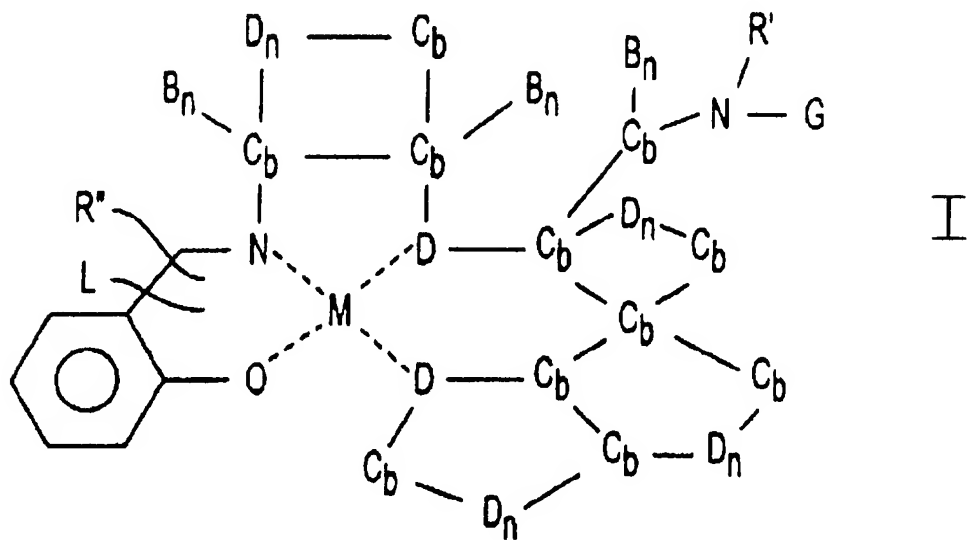
Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1 - 26. (Cancelled)

27. (Currently amended) A labeled nickel complex compound having formula I:



wherein:

B independently represents doubly bonded oxygen;

C represents carbon;

D independently represents nitrogen or oxygen;

L is a detectable label, optionally attached to a linker;

M represents a nickel ion;

b is from 0 to 6;

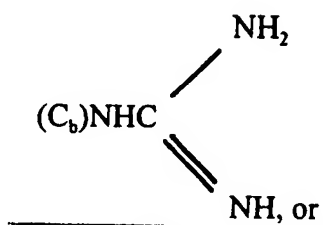
n is 0 to 1;

R' represents hydrogen, alkyl, aryl or a peptide chain;

R'' is R, R' or G;

G represents OH, an amide or a DNA delivery agent; and

R represents a nitrogen-containing cationic group, optionally attached to a linker, wherein said cationic group is at least one C_b group linked to a nitrogen atom, (CH₂)₃ NH₂, (CH₂)₄ NH₂, C_bN (C_b)₀₋₃,



pyridyl .

28. (Previously presented) The labeled nickel complex compound of claim 27, wherein said DNA delivery agent comprises intercalators, oligonucleotides, proteins or polyamines.

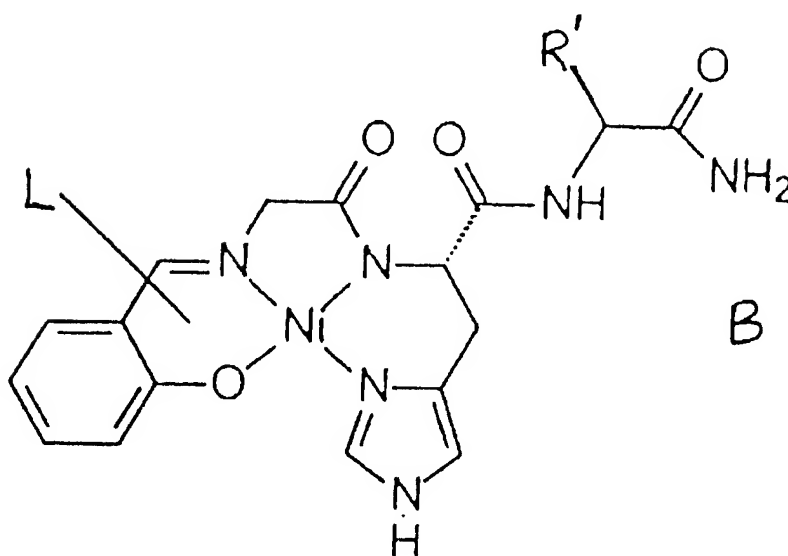
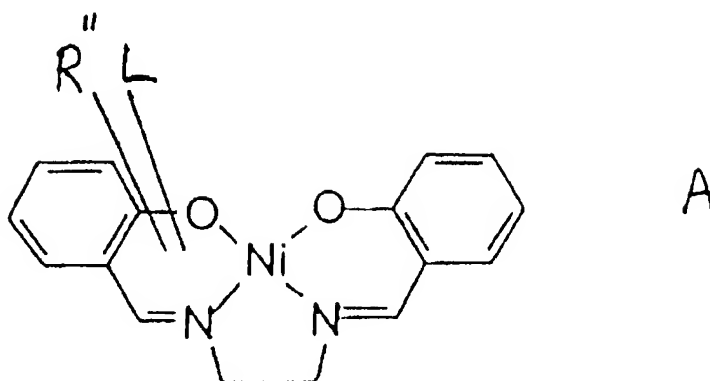
29. (Currently amended) The labeled nickel complex compound of claim 27, wherein the label is a radioactive compound, a protein ligand, a fluorescent compound or an enzyme.

30. (Previously presented) The labeled nickel complex compound of claim 27, which is labeled with biotin.

31. (Previously presented) The labeled nickel complex compound of claim 27, wherein R' is a peptide chain.

32. (Currently amended) A labeled nickel complex compound, having formula A or

B:



wherein:

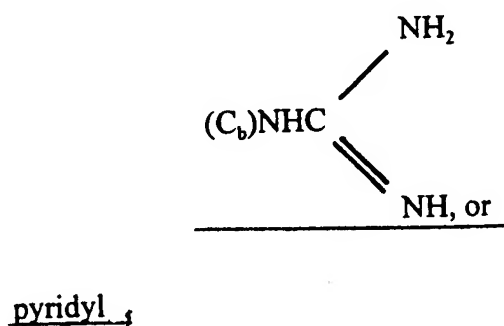
R' represents hydrogen, alkyl, aryl or a peptide chain;

R'' represents R, R' or G;

L is a detectable label, optionally attached to a linker;

G represents -OH, -OR, an amide or a DNA delivery agent; and

R represents a nitrogen-containing cationic group optionally attached to a linker, wherein said cationic group is at least one C_b group linked to a nitrogen atom, (CH₂)₃ NH₂, (CH₂)₄ NH₂, C_bN (C₆)₀₋₃,



and wherein the label is a radioactive compound, a protein ligand, a fluorescent compound, or an enzyme, and the complex is labeled with biotin.

33. (Cancelled)
34. (Cancelled)
35. (Previously presented) A labeled nickel complex compound, which is Ni-salen-biotin complex.
36. (Currently amended) A labeled nickel complex compound, which is (Ni(salen-Lys(biotin) His Arg) complex.

37. (Previously presented) A method for detecting a non-canonical nucleic acid sequence comprising binding the labeled nickel complex compound of claim 27, to a sample of nucleic acid, and detecting a signal of the detectable label on the labeled nickel complex compound.

38. (Previously presented) The method of claim 37, wherein the detectable label is a radioactive compound, a protein ligand, a fluorescent compound, or an enzyme.

39. (Previously presented) The method of claim 37, wherein the detectable label is biotin.

40. (Previously presented) A method for detecting a non-canonical nucleic acid sequence comprising binding the labeled nickel complex compound of claim 32, to a sample of nucleic acid, and detecting a signal of the detectable label on the labeled nickel complex compound.

41. (Previously presented) The method of claim 40, wherein the detectable label is a radioactive compound, a protein ligand, a fluorescent compound, or an enzyme.

42. (Previously presented) The method of claim 40, wherein the detectable label is biotin.

43. (Previously presented) A labeled hybrid compound comprising the labeled nickel complex compound of claim 27, complexed with a protein or oligonucleotide.

44. (Previously presented) The labeled hybrid compound of claim 43, wherein the labeled nickel complex compound is labeled with a radioactive compound, a protein ligand, a fluorescent compound or an enzyme.

45. (Cancelled)
46. (Previously presented) The labeled hybrid compound of claim 43, which is labeled with biotin.
47. (Previously presented) The labeled hybrid compound of claim 43, which is labeled with a green fluorescent protein or epitope.
48. (Previously presented) A labeled hybrid compound comprising the labeled nickel complex compound of claim 32, complexed with a protein or oligonucleotide.
49. (Previously presented) The labeled hybrid compound of claim 48, wherein the labeled nickel complex compound is labeled with a radioactive compound, a protein ligand, a fluorescent compound or an enzyme.
50. (Currently amended) The labeled hybrid compound of claim 49, which is complexed with the protein; wherein a penultimate amino acid from the N-terminus of the protein is histidine.
51. (Previously presented) The labeled hybrid compound of claim 48, which is labeled with biotin.
52. (Previously presented) The labeled hybrid compound of claim 48, which is labeled with a green fluorescent protein or epitope.
53. (Previously presented) A method for detecting or measuring protein-nucleic acid interaction comprising mixing the labeled hybrid compound of claim 43, with a solution of nucleic acid, and assaying for the signal from a detectable label attached to the nucleic acid.

54. (Previously presented) The method of claim 53, wherein said label is a radioactive compound, a protein ligand, a fluorescent compound, or an enzyme.

55. (Previously presented) A method for purifying a nucleic acid-nickel-complex adduct, comprising:

- a) mixing the labeled nickel complex compound of claim 27, with a solution of DNA,
- b) subjecting the mixture of step a) to a separation medium, wherein the medium contains a material that specifically binds to the label, and
- c) separating the bound medium from the solution mixture, wherein the adduct is bound to the material of the separation medium.

56. (Previously presented) The method of claim 55, wherein said separation medium is affinity chromatogram.

57. (Previously presented) The method of claim 56, wherein said label is biotin, and the material in the separation medium binds to biotin.

58. (Previously presented) The method of claim 57, wherein the material binding to biotin is avidin.

59. (Previously presented) The method of claim 57, wherein the material binding to biotin is streptavidin.

60. (Previously presented) A method for purifying a nucleic acid-nickel-complex adduct, comprising:

- a) mixing the labeled nickel complex compound of claim 32, with a solution of DNA,
- b) subjecting the mixture to a separation medium, wherein the medium contains a material that specifically binds to the label, and

c) separating the bound medium from the solution mixture, wherein the adduct is bound to the material of the separation medium.

61. (Previously presented) The method of claim 60, wherein said separation medium is affinity chromatogram.

62. (Previously presented) The method of claim 61, wherein the label is biotin, and the material in the separation medium binds to biotin.

63. (Previously presented) The method of claim 62, wherein the material binding to biotin is avidin.

64. (Previously presented) The method of claim 62, wherein the material binding to biotin is streptavidin.

65. (Previously presented) A method for detecting or measuring protein-nucleic acid interaction comprising mixing the labeled hybrid compound of claim 43, with a solution of nucleic acid, and assaying for the signal from a detectable label attached to the nucleic acid.

66. (Previously presented) The method of claim 53, wherein said label is a radioactive compound, a protein ligand, a fluorescent compound, or an enzyme.